0.a. Goal

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

0.b. Target

Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

0.c. Indicator

Indicator 4.6.1: Proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex

0.d. Series

Not applicable.

0.e. Metadata update

May 2021

0.f. Related indicators

1.2, 1.5, 2.1, 2.2, 2.3, 3.1, 3.3, 3.4, 3.7, 4.5, 5.3, 5.4, 5.5, 5.6, 8.5, 8.6, 8.b, 10.2, 12.8, 13.3, 13.b

0.g. International organisations(s) responsible for global monitoring

UNESCO Institute for Statistics (UNESCO-UIS)

1.a. Organisation

UNESCO Institute for Statistics (UNESCO-UIS)

2.a. Definition and concepts

Definition:

The proportion of youth (aged 15-24 years) and of adults (aged 15 years and above) who have achieved or exceeded a fixed level of proficiency in (a) literacy and (b) numeracy.

Concepts:

The **fixed level of proficiency (FLP)** is the benchmark of basic knowledge in a domain (literacy or numeracy) measured through learning assessments. Currently, the FLP for global reporting is PIAAC level 2 descriptor.

The concepts of functional literacy and functional numeracy are based on the UNESCO definitions, which cover a continuum of proficiency levels rather than a dichotomy. A person is functionally literate if he/she can engage in all those activities in which literacy is required for the effective functioning of his/her group and community and also which enables them to continue to use reading, writing and calculation for his/her own and the community's development.

2.b. Unit of measure

This indicator is expressed as proportion of youth and of adults who have achieved or exceeded a fixed level of proficiency in (a) literacy and (b) numeracy.

2.c. Classifications

Level 2 descriptor of PIAAC

Literacy:

At this level, the medium of texts may be digital or printed, and texts may comprise continuous, non-continuous, or mixed types. Tasks at this level require respondents to make matches between the text and information, and may require paraphrasing or low-level inferences. Some competing pieces of information may be present. Some tasks require the respondent to

- cycle through or integrate two or more pieces of information based on criteria;
- compare and contrast or reason about information requested in the question; or
- navigate within digital texts to access and identify information from various parts of a document.

Numeracy:

Tasks at this level require the respondent to identify and act on mathematical information and ideas embedded in a range of common contexts where the mathematical content is fairly explicit or visual with relatively few distractors. Tasks tend to require the application of two or more steps or processes involving calculation with whole numbers and common decimals, percents and fractions; simple measurement and spatial representation; estimation; and interpretation of relatively simple data and statistics in texts, tables and graphs.

3.a. Data sources

This indicator is collected via skills' assessment surveys of the adult population (e.g., PIAAC, STEP, LAMP, RAMAA) and national adult literacy surveys.

3.b. Data collection method

Data are collected from the respective organizations responsible for each assessment.

3.c. Data collection calendar

Various depending on survey and country.

3.d. Data release calendar

Data is released by the UIS in February/March and September every year.

3.e. Data providers

This indicator is collected via skills national or international assessment surveys of youth and adult populations. OECD's Survey of Adult Skills in its Programme for the International Assessment of Adult Competencies (PIAAC) and the World Bank's Skills Towards Employment and Productivity (STEP) measurement programme, both based on the PIAAC framework and scale, and bodies responsible for conducting national learning assessments (including Ministries of Education, National Statistical Offices and other data providers) are sources of data of this indicator

3.f. Data compilers

UNESCO Institute for Statistics

3.g. Institutional mandate

The UNESCO Institute for Statistics (UIS) is the statistical branch of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The Institute produces internationally comparable data and methodologies in the fields of education, science, culture and communication for countries at all stages of development.

The Education 2030 Framework for Action 100 has clearly states that: "*In recognition of the importance of harmonization of monitoring and reporting, the UIS will remain the official source of cross-nationally comparable data on education. It will continue to produce international monitoring indicators based on its annual education survey and on other data sources that guarantee international comparability for more than 200 countries and territories. In addition to collecting data, the UIS will work with partners to develop new indicators, statistical approaches and monitoring tools to better assess progress across the targets related to UNESCO's mandate, working in coordination with the SDG-Education 2030 SC*"

4.a. Rationale

The indicator is a direct measure of the skill levels of youth and adults in the two areas: literacy and numeracy.

4.b. Comment and limitations

Functional literacy and numeracy are related to context thus survey programs need further development in order to frame questions in a way that are meaningful to different economic and social-settings and could be more efficient to reflect population level of skills.

4.c. Method of computation

Proportion of youth and adults who have achieved at least a fixed level of proficiency as defined for large-scale (sample representative) adult literacy and numeracy assessments:

$$PFLP\ t,a,d = \frac{FLP\ t,a,d}{P\ t,a,d}$$

where:

PFLP t,a,d = the proportion of people in a skills survey in age group **a**, in year **t**, who have achieved or exceeded the fixed level of proficiency in domain **d**.

FLP t,a,d = the number of people in a skills survey in age group **a**, in year **t**, who have achieved or exceeded the fixed level of proficiency in domain **d**.

P t,a,d = the total number of people in age group **a**, in year **t**, who participated in the skills survey of domain **d.**

a = 16-65 years (youth and adults)

d = the domain which was assessed (literacy or numeracy)

4.d. Validation

In each data update period, surveys of recent publications of results of national and international assessments are carried out. Then, consultations are made with national references and UIS technical focal points to verify the availability and validity of the data.

4.e. Adjustments

Not applicable.

4.f. Treatment of missing values (i) at country level and (ii) at regional level

• At country level

None by data compiler.

• At regional and global levels

None by data compiler.

4.g. Regional aggregations

Regional and global aggregates are not currently available for this indicator.

4.h. Methods and guidance available to countries for the compilation of the data at the national level

The UIS has elaborated guidance for the countries regarding the contents, the procedures and the reporting in the Global Alliance to monitor learning microsite.

4.i. Quality management

The UIS maintains a global database on learning assessments. The inclusion of a data point in the database to show transparency is completed by following a protocol and is reviewed by UIS technical focal points to ensure consistency and overall data quality, based on objective criteria to ensure that only the most recent and reliable information are included in the database.

4.j. Quality assurance

OECD is the data compiler for PIAAC and the World Bank Group is the compiler for STEP, both used the PIAAC framework and skills level descriptors.

4.k. Quality assessment

The criteria to ensure the quality and standardization of the data are: the data sources must include adequate documentation; data values should be representative at the national population level and should otherwise be included in a footnote; data values are based on a sufficiently large sample; and the data are plausible and based on trends and consistency with previously published or reported estimates for the indicator.

5. Data availability and disaggregation

Data availability:

45 countries with at least one data point for the period 2010-2017.

Time series:

2006 onwards.

Disaggregation:

By age-group, sex, location, income and type of skill. Disability status is not currently available in most national and cross-national learning assessments.

6. Comparability/deviation from international standards

Sources of discrepancies:

None.

7. References and Documentation

URL:

http://www.uis.unesco.org/Pages/default.aspx

References:

Programme for the International Assessment of Adult Competencies (PIAAC):

http://www.oecd.org/site/piaac/

STEP Skills Measurement Programme: http://microdata.worldbank.org/index.php/catalog/step/about

Action Research: Measuring Literacy Programme Participants' Learning Outcomes (RAMAA):

https://uil.unesco.org/literacy-and-basic-skills/assessment-and-monitoring-ramaa